



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/523,366	03/10/2000	Earl G. Powell	AMAT/2801/USA/AKT/SB	4971

32588 7590 05/22/2003

APPLIED MATERIALS, INC.  
2881 SCOTT BLVD. M/S 2061  
SANTA CLARA, CA 95050

EXAMINER
----------

BOOTH, RICHARD A

ART UNIT	PAPER NUMBER
----------	--------------

2812

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/523,366

Applicant(s)

POWELL, EARL G.

Examiner

Richard A. Booth

Art Unit

2812

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 and 22 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-15, and 23-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4-30-03 has been entered.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-11, 14-15, and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maydan et al., U.S. Patent 5,292,393 in view of Yamamoto et al., U.S. Patent 4,094,722.

Maydan et al. shows the invention substantially as claimed including a transfer chamber 13 adapted to couple to at least one processing chamber 14 and at least one load lock chamber 24 and to house at least an end effector of a robot 80 adapted to transport a substrate between the at least one processing chamber and at least one processing chamber (see fig. 1 and col. 4-line 18 to col. 8-line 64).

Maydan et al. fails to expressly disclose a lid mounted on the transfer chamber wherein the lid has a curved configuration such that an edge of the lid is sealed to an edge of the transfer chamber and the lid is curved such that a center of the lid gradually increases its distance both horizontally and vertically from the edge of the transfer chamber, a lid with a convex configuration, and wherein the lid comprises a plurality of windows positioned along the lid.

Yamamoto et al. discloses a transfer chamber 20 with a lid 14 with a curved configuration such that a center of the lid gradually increases its distance both horizontally and vertically from the edge of the transfer chamber (see figures 2, 4-5 and col. 2-line 9 to col. 5-line 7). In view of this disclosure, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the primary reference of Maydan et al. so as to include the domed lid configuration of Yamamoto et al. because this is shown to be a suitable lid configuration for a transfer chamber.

With respect to the shape of the lid, absent persuasive evidence that the particular configuration of the claimed container was significant, the particular shape is a matter of choice (see *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)).

Regarding the openings, Yamamoto et al. shows openings 23 in the lid of the processing chamber 24 (see column 2, lines 40-45). In view of this disclosure, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a window in the domed lid configuration of the transfer chamber of Yamamoto in order to allow for viewing of the wafer as the process is being conducted. Regarding using a structural feature for absorbing stress to the lid such as an "S"

Art Unit: 2812

transition, the examiner takes official notice that such structures are notoriously well known in the art for providing enhanced stability of structures and would have been obvious to incorporate into the above mentioned references.

Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maydan et al., U.S. Patent 5,292,393 in view of Yamamoto et al., U.S. Patent 4,094,722 as applied to claims 1-3, 5-11, 14-15, and 23-28 above, and further in view of Kroeker, U.S. Patent 6,000,227.

Maydan et al. and Yamamoto et al. are applied as above but lack anticipation of having processing or diagnostic devices in the transfer chamber lid.

Kroeker discloses both of these devices being in a transfer chamber lid (see description in applicant's own specification at page 9, lines 26-35). In view of this disclosure, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form a processing or diagnostic device in the transfer chamber lid of Yamamoto et al. because this gives increased controllability over processing.

### ***Response to Arguments***

Applicant's arguments filed 4-30-03 have been fully considered but they are not persuasive. Applicant argues that in Maydan et al., reference number 14 refers to a load lock chamber and not a transfer chamber. However, notwithstanding the particular nomenclature used in the reference, it is clear that the transfer chamber can be referred to as 14 and the load lock chamber can be referred to as 24 (see, for example, col. 4-

Art Unit: 2812

lines 62-68 which clearly illustrate the load lock chamber being 24). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Concerning the Yamamoto reference, the examiner is relying on this reference simply to illustrate the use of a curved chamber lid in a chamber in which wafers are transferred. Yamamoto clearly illustrates this claim limitation. Regarding applicant's argument of claim 28, such an advantage of convex chamber lids was never put forth in applicant's originally filed specification and the arguments of counsel cannot take the place of evidence in the record. *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965).

#### ***Allowable Subject Matter***

Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 21-22 are allowed.

#### ***Conclusion***

This is a RCE of applicant's earlier Application No. 09/523,366. All claims are drawn to the same invention claimed in the earlier application and could have been

Art Unit: 2812

finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

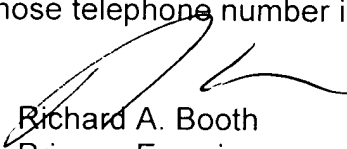
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard A. Booth whose telephone number is 308-3446. The examiner can normally be reached on Monday-Thursday from 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling can be reached on 308-3325. The fax phone numbers for the organization where this application or proceeding is assigned are 308-7724 for regular communications and 308-7724 for After Final communications.

Art Unit: 2812

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-1782.



Richard A. Booth  
Primary Examiner  
Art Unit 2812

May 21, 2003